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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/866,495	05/25/2001	David E. Patterson	3017-55	4882
22448	7590	12/22/2005	EXAMINER	
LAURENCE A WEINBERGER 882 S. MATLACK ST. SUITE 103 WEST CHESTER, PA 19382			ZEMAN, MARY K	
			ART UNIT	PAPER NUMBER
			1631	

DATE MAILED: 12/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	09/866,495		PATTERSON ET AL.	
	Examiner		Art Unit	
	Mary K. Zeman		1631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 5-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 5-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Applicant's arguments filed 10/25/05 have been fully considered but they are not persuasive. Specific arguments are addressed below.

Claims 1, 2, 5-12 are pending.

Rejections maintained

Claims 1, 2, and 5-12 remain rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention *for the reasons of record*.

Applicant argues that the claimed molecules are clearly identified by the new "3D" selection and validation method by which they are selected. Applicant provides motivation to perform the method to identify new lead compound information. These arguments are not persuasive. The specification as filed provides no molecules or sets of molecules meeting the limitations of the claims. As Applicant points out, there is no traditional basis which one of skill in the art could use to predict what molecules could fall into a given "set" as this entirely new method can provide totally unexpected results. The specification does not provide enough basis for the product which Applicant is reaching for in these claims.

The claims are drawn to molecules, or sets of molecules, which result from a selection through a particular computer-implemented invention. No physical characteristics of the selected molecules or set of molecules are delineated by the claims. No specific molecules or classes or sets of molecules are disclosed in the specification. The specification does not identify any compounds which were selected by the methods written in the claims and meet the various qualitative descriptions. The claims are a wish to encompass molecules which may in the future be determined to be selected by Applicant's methods. The selection method does not lead to the identification of a well known class of compounds or molecules. It is noted that Applicant already has patents to the methods of selection. Indeed, these pending claims are covered by the reach-through materials provided by the Examiner, as Applicant is "reaching through" their disclosure to attempt to patent molecules which they have not identified or disclosed.

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As set forth previously, the claims lack written description in the specification as filed. All previous arguments and explanations are incorporated herein.

Claims 1, 2, and 5-12 remain rejected under 35 U.S.C. 101 because the claimed invention is not supported by either a specific, substantial or credible asserted utility or a well established utility for the reasons of record.

Applicant argues that the claimed molecules are clearly identified by the new “3D” selection and validation method by which they are selected. Applicant provides motivation to perform the method to identify new lead compound information. These arguments are not persuasive. The specification as filed provides no molecules or sets of molecules meeting the limitations of the claims. As Applicant points out, there is no traditional basis which one of skill in the art could use to predict what molecules could fall into a given “set” as this entirely new method can provide totally unexpected results. The specification cannot provide a utility for a molecule or set of molecules that has not been identified or described.

The claims are drawn to molecules, or sets of molecules, which result from a selection through a particular computer-implemented invention. No physical characteristics of the selected molecules or set of molecules are delineated by the claims. Molecules that are not identified have no specific, substantial or credible utility. Molecules that are not identified have no well-established utility, as no one knows what the encompassed molecules are.

Applicant argues that methods of identifying similar molecules or molecules with similar activities have utility. The claims are not drawn to methods, but to unspecified molecules. Applicant argues that the molecules have specific structures and functions, but it is noted these change depending on how they were selected, and that the methods can select previously unidentified or unrelated chemicals. So, no particular activity, structure or function can be assigned to the class of encompassed molecules.

As such, there is no specific, substantial and credible utility for the nonspecific, possible, virtual molecules set forth in the claims.

Claims 1, 2, and 5-12 remain rejected under 35 U.S.C. 112, first paragraph for the reasons of record. Specifically, since the claimed invention is not supported by either a specific,

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substantial or credible asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention.

Claims 1, 2, and 5-12 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The examiner has closely reviewed the application, the amended claims, new claims, and arguments presented. The claims are drawn to molecules, or sets of molecules, which result from a selection through a particular computer-implemented invention. No physical characteristics of the selected molecules or set of molecules are delineated by the claims. The molecules selected are not actually synthesized, and *the claims appear to recite and/or encompass data structures.*

Collections of non-specific data which are not embodied on a computer-readable media are non-statutory. Collections of data which are not concrete, tangible and useful are non-statutory. The collections of data set forth in the claims do not describe any specific molecules or specific compounds.

The claims are drawn to products that have no specific structure, or function or even any tangible identity.

As set forth previously, Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

Both types of "descriptive material" are nonstatutory when claimed as descriptive material per se. Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. When nonfunctional descriptive material is recorded on some computer-readable medium, in a computer or on an electromagnetic carrier signal, it is not statutory since no requisite functionality is present to satisfy the practical application requirement. Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored in a computer-readable medium, in a computer, on an electromagnetic carrier signal does not make it statutory. See Diehr, 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for

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an algorithm in Benson were unpatentable as abstract ideas because “[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer.”). Such a result would exalt form over substance. In re Sarkar, 588 F.2d 1330, 1333, 200 USPQ 132, 137 (CCPA 1978).

(a) Functional Descriptive Material: “Data Structures” Representing Descriptive Material Per Se or Computer Programs Representing Computer Listings Per Se

Data structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. See, e.g., Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure’s functionality to be realized. In contrast, a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure’s functionality to be realized, and is thus statutory.

Similarly, computer programs claimed as computer listings per se, i.e., the descriptions or expressions of the programs, are not physical “things.” They are neither computer components nor statutory processes, as they are not “acts” being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program’s functionality to be realized. In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program’s functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101_20051026.pdf

Conclusion

No claim is allowed.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

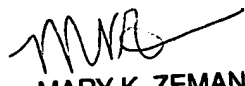
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary K Zeman whose telephone number is (571) 272 0723

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ardin Marschel, PhD can be reached on (571) 272 0718. The fax phone number for the organization where this application or proceeding is assigned is 571 273 8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to (571) 272-0547.

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MARY K. ZEMAN
PRIMARY EXAMINER
